

09/581594

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(FILE 'HOME' ENTERED AT 09:32:54 ON 26 SEP 2001)

FILE 'CA' ENTERED AT 09:33:07 ON 26 SEP 2001

L1 99 S (ABSORB? OR ADSORB? OR SPRAY? OR OVERSPRAY?) (P) (NONIONIC OR  
A  
L2 9 S L1 AND (BULK OR APPARENT OR TAMPED) (2W) DENSIT?  
L3 14 S (ABSORB? OR ADSORB? OR SPRAY? OR OVERSPRAY?) (10A) (NONIONIC  
OR  
L4 -12 S L3 NOT L2

FILE 'USPATFULL' ENTERED AT 09:53:54 ON 26 SEP 2001

L5 119 S L3 AND (BULK OR APPARENT OR TAMPED) (2W) DENSIT?  
L6 37326 S (MIX?) (P) (PADDLE OR SCREW OR RIBBON)  
L7 27 S L5 AND L6  
L8 5 S L5 AND FROUDE  
L9 23 S L7 NOT L8

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=> s (absorb? or adsorb? or spray? or overspray?) (p) (nonionic or anionic) and (coat? or dust? or postmix? or post mix? or postdos? or post dos? or post add?) (p) (fine powder or zeolite# or silicate# or aluminosilicate#)

290620 ABSORB?  
245739 ADSORB?  
181562 SPRAY?  
442 OVERSPRAY?  
55356 NONIONIC  
87391 ANIONIC  
8605 (ABSORB? OR ADSORB? OR SPRAY? OR OVERSPRAY?) (P) (NONIONIC OR ANIONIC)  
777373 COAT?  
96298 DUST?  
15 POSTMIX?  
132048 POST  
2102261 MIX?  
64 POST MIX?  
(POST(W)MIX?)  
848 POSTDOS?  
132048 POST  
688162 DOS?  
777 POST DOS?  
(POST(W)DOS?)  
132048 POST  
2489061 ADD?  
127 POST ADD?  
(POST(W)ADD?)  
205366 FINE  
364778 POWDER  
7097 FINE POWDER  
(FINE(W)POWDER)  
83814 ZEOLITE#  
154406 SILICATE#  
32430 ALUMINOSILICATE#  
22319 (COAT? OR DUST? OR POSTMIX? OR POST MIX? OR POSTDOS? OR POST DOS? OR POST ADD?) (P) (FINE POWDER OR ZEOLITE# OR SILICATE# OR ALUMINOSILICATE#)  
L1 99 (ABSORB? OR ADSORB? OR SPRAY? OR OVERSPRAY?) (P) (NONIONIC OR ANIONIC) AND (COAT? OR DUST? OR POSTMIX? OR POST MIX? OR POSTDOS  
POSTDOS ? OR POST DOS? OR POST ADD?) (P) (FINE POWDER OR ZEOLITE# OR  
SILIC ATE# OR ALUMINOSILICATE#)

=> s l1 and (bulk or apparent or tamped) (2w) densit?

206479 BULK  
226039 APPARENT  
310 TAMPED  
251491 DENSIT?  
2623 (BULK OR APPARENT OR TAMPED) (2W) DENSIT?  
L2 9 L1 AND (BULK OR APPARENT OR TAMPED) (2W) DENSIT?

=> d 1-9 12 ti

L2 ANSWER 1 OF 9 CA COPYRIGHT 2001 ACS  
TI High-bulk-density granular laundry detergent compositions in paper-based containers

L2 ANSWER 2 OF 9 CA COPYRIGHT 2001 ACS  
TI High-**bulk-density** granular laundry detergent compositions with good fluidity

L2 ANSWER 3 OF 9 CA COPYRIGHT 2001 ACS  
TI Nonionic surfactant-containing particles and manufacture of high **bulk density** powdered detergents by adding them

L2 ANSWER 4 OF 9 CA COPYRIGHT 2001 ACS  
TI High **bulk density** detergent compositions containing polycarboxylate in separate granules and its use

L2 ANSWER 5 OF 9 CA COPYRIGHT 2001 ACS  
TI Detergent compositions with high **bulk density** and their manufacture

L2 ANSWER 6 OF 9 CA COPYRIGHT 2001 ACS  
TI Process for increasing the **bulk density** of a granular detergent composition

L2 ANSWER 7 OF 9 CA COPYRIGHT 2001 ACS  
TI Manufacture of caking-resistant nonionic surfactant granule compositions with high **bulk density** and flowability

L2 ANSWER 8 OF 9 CA COPYRIGHT 2001 ACS  
TI High **bulk density** granular detergent compositions containing carbonate builder

L2 ANSWER 9 OF 9 CA COPYRIGHT 2001 ACS  
TI Process for increasing the **bulk density** of spray-dried detergents with a reduced phosphate content

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=> d 3, 6, 7, 9 12

L2 ANSWER 3 OF 9 CA COPYRIGHT 2001 ACS  
AN 127:20020 CA  
TI Nonionic surfactant-containing particles and manufacture of high  
**bulk density** powdered detergents by adding them  
IN Hashimoto, Shinichi; Inotsuka, Takashi; Fukutome, Shinichi; Abe, Seiji  
PA Lion Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09100498	A2	19970415	JP 1995-279758	19951003

L2 ANSWER 6 OF 9 CA COPYRIGHT 2001 ACS  
AN 121:303602 CA  
TI Process for increasing the **bulk density** of a granular  
detergent composition  
IN Van Dijk, Paul; Vega, Jose Luis; France, Paul Amaat Raymond G.  
PA Procter and Gamble Co., USA  
SO PCT Int. Appl., 39 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9405761	A1	19940317	WO 1993-US8151	19930830
	W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	EP 660873	A1	19950705	EP 1993-922135	19930830
	EP 660873	B1	20010606		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	JP 08500631	T2	19960123	JP 1993-507370	19930830
	AU 677238	B2	19970417	AU 1993-51245	19930830
	CA 2143628	C	19990112	CA 1993-2143628	19930830
	ES 2157223	T3	20010816	ES 1993-922135	19930830
	CN 1086258	A	19940504	CN 1993-118968	19930901
	CN 1061369	B	20010131		
	FI 9500913	A	19950228	FI 1995-913	19950228
	NO 9500768	A	19950428	NO 1995-768	19950228
PRAI	EP 1992-870138	A	19920901		
	EP 1993-200460	A	19930218		
	WO 1993-US8151	W	19930830		

L2 ANSWER 7 OF 9 CA COPYRIGHT 2001 ACS  
AN 119:162902 CA  
TI Manufacture of caking-resistant nonionic surfactant granule compositions  
with high **bulk density** and flowability  
IN Yamashita, Hiroyuki; Kondo, Hiroyuki; Hatano, Koichi; Nakano, Katsunori;  
Toyoda, Koji  
PA Kao Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05125400	A2	19930521	JP 1992-107460	19920427
PRAI	JP 1991-112929		19910517		
	JP 1991-194268		19910802		

L2 ANSWER 9 OF 9 CA COPYRIGHT 2001 ACS

AN 112:38748 CA

TI Process for increasing the bulk density of spray-dried  
detergents with a reduced phosphate content

IN Jacobs, Jochen; Jahnke, Ulrich; Jung, Dieter; Loeffelmann, Rudolf; Adler,  
Wilfried

PA Henkel K.-G.a.A., Fed. Rep. Ger.

SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 337330	A2	19891018	EP 1989-106222	19890408
	EP 337330	A3	19900411		
	EP 337330	B1	19960515		
	R: AT, BE, CH, DE, ES, FR, IT, LI, NL				
	DE 3812530	A1	19891026	DE 1988-3812530	19880415
	AT 138096	E	19960615	AT 1989-106222	19890408
	ES 2086308	T3	19960701	ES 1989-106222	19890408
	DK 8901823	A	19891016	DK 1989-1823	19890414
	JP 01311200	A2	19891215	JP 1989-96206	19890414
	US 5149455	A	19920922	US 1991-644469	19910118
PRAI	DE 1988-3812530		19880415		
	US 1989-335904		19890410		

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L2 ANSWER 3 OF 9 CA COPYRIGHT 2001 ACS  
 AN 127:20020 CA  
 TI Nonionic surfactant-containing particles and manufacture of high  
**bulk density** powdered detergents by adding them  
 IN Hashimoto, Shinichi; Inotsuka, Takashi; Fukutome, Shinichi; Abe, Seiji  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D011-00  
 ICS C11D010-02; C11D001-66; C11D003-10; C11D003-12; C11D001-83  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09100498	A2	19970415	JP 1995-279758	19951003
AB	<p>Inorg. builders comprising zeolite and Na<sub>2</sub>CO<sub>3</sub> are mixed in rolling granulizer drum and <b>sprayed</b> by 7-20% <b>nonionic</b> surfactants at <b>spraying</b> d. (D) .ltoreq.3 g/cm<sup>2</sup>-min and Froude no. F 0.1-0.8; F = .pi.Dn/(gD/2)<sup>1/2</sup> (D = diam. of drum; n = rps; g = acceleration of gravity) to give title particles contg. reduced amts. of large particles, which show improved fluidity. The caking-resistant detergents are manufd. by blending the particles with compns. contg. <b>anionic</b> surfactants, water-sol. inorg. builders, etc., so that the contents of the <b>nonionic</b> surfactants are 0.5-5% vs. the total compns. Thus, 10/77 mixt. of zeolite and Na<sub>2</sub>CO<sub>3</sub> was <b>sprayed</b> by polyethylene glycol dodecyl ether at D = 1.1 g/cm<sup>2</sup>-min and F = 0.7 to give title particles, 5% of which was blended with a compn. contg. Na C14-18 .alpha.-sulfofatty acid Me ester salt, Na C12-16 .alpha.-olefinsulfonate, Na C16-18 fatty acid salt, zeolite, and other additives to give title detergent contg. 4.5% particle with diam. .ltoreq.52 .mu.m and good caking resistance.</p>				
ST	<p><b>nonionic</b> surfactant addn powd detergent; builder particle <b>nonionic</b> surfactant <b>spraying</b>; high <b>bulk density</b> detergent <b>nonionic</b> surfactant; fluidity improved <b>nonionic</b> surfactant coated particle; caking resistance detergent <b>nonionic</b> surfactant; Froude no regulation <b>spraying</b> surfactant</p>				
IT	<p><b>Zeolites</b> (synthetic), uses          RL: TEM (Technical or engineered material use); USES (Uses)          (builders comprising <b>zeolite</b> and sodium carbonate <b>coated</b> by nonionic surfactants for high bulk d. detergents)</p>				
IT	<p>Fatty acids, uses          RL: TEM (Technical or engineered material use); USES (Uses)          (ethoxylated, ethoxylated, nonionic surfactants; builders comprising <b>zeolite</b> and sodium carbonate <b>coated</b> by nonionic surfactants for high bulk d. detergents)</p>				
IT	<p>Detergents          Nonionic surfactants          (manuf. of high bulk d. powd. detergents with caking resistance by adding nonionic surfactant-contg. particles)</p>				
IT	<p>497-19-8, Sodium carbonate, uses          RL: TEM (Technical or engineered material use); USES (Uses)          (builders comprising <b>zeolite</b> and sodium carbonate</p>				

coated by nonionic surfactants for high bulk d. detergents)  
IT 9002-92-0, Polyethylene glycol dodecyl ether 9004-74-4D, Polyethylene  
glycol methyl ether, fatty acid ester  
RL: TEM (Technical or engineered material use); USES (Uses)  
(nonionic surfactants; builders comprising **zeolite** and sodium  
carbonate **coated** by nonionic surfactants for high bulk d.  
detergents)

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L2 ANSWER 7 OF 9 CA COPYRIGHT 2001 ACS  
 AN 119:162902 CA  
 TI Manufacture of caking-resistant nonionic surfactant granule compositions with high **bulk density** and flowability  
 IN Yamashita, Hiroyuki; Kondo, Hiroyuki; Hatano, Koichi; Nakano, Katsunori; Toyoda, Koji  
 PA Kao Corp, Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D017-06  
 ICS C11D011-00  
 CC 46-3 (Surface Active Agents and Detergents)  
 FAN CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05125400	A2	19930521	JP 1992-107460	19920427
PRAI	JP 1991-112929		19910517		
	JP 1991-194268		19910802		

AB The title compns. (bulk d. 0.6-1.2 g/mL) are prepd. from 15-70 parts oil-  
**absorbent** porous carrier (pore vol. 100-600 cm<sup>3</sup>/100 g, sp. surface  
 area 20-700 m<sup>2</sup>/g, oil absorption >100 mL/100 g) and 30-85 parts  
**nonionic** surfactants in a stirred vessel by forming a powder  
 adhesion layer on the vessel wall forming a clearance from the stirring  
 blades, granulating such layer into high-d. granules by the stirrer  
 blade,

and **coating** the granules with **fine powder**.

Granules were prepd. from 65 parts polyoxyethylene dodecyl ether and 35 parts amorphous silica, covered with 2 parts amorphous silica.

ST caking resistant nonionic surfactant granule; silica nonionic surfactant granule

IT Surfactants

(nonionic, granules of, manuf. of, caking-resistant)

IT 546-93-0, Magnesium carbonate 7631-86-9, Silica, uses

RL: USES (Uses)

(in caking-resistant nonionic surfactant manuf.)

IT 9002-92-0, Polyoxyethylene dodecyl ether

RL: TEM (Technical or engineered material use); USES (Uses)

(surfactants, granules, manuf. of caking-resistant)

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L4 ANSWER 8 OF 12 CA COPYRIGHT 2001 ACS

AN 99:214544 CA

TI Softener-containing granular detergent for textiles

IN Allen, Edwin; Dillarstone, Alan; Reul, Joseph Andre

PA Colgate-Palmolive Co., USA

SO Ger. Offen., 39 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3311568	A1	19831020	DE 1983-3311568	19830330
	DE 3311568	C2	19941020		
	US 4419250	A	19831206	US 1982-366712	19820408
	US 4421657	A	19831220	US 1982-366713	19820408
	ZA 8302108	A	19841128	ZA 1983-2108	19830324
	AT 8301191	A	19910915	AT 1983-1191	19830405
	AT 394380	B	19920325		
	FR 2524902	A1	19831014	FR 1983-5624	19830406
	FR 2524902	B1	19870731		
	SE 8301906	A	19831009	SE 1983-1906	19830407
	SE 459658	B	19890724		
	SE 459658	C	19891116		
	NO 8301236	A	19831010	NO 1983-1236	19830407
	NO 154758	B	19860908		
	NO 154758	C	19861217		
	ES 521306	A1	19860201	ES 1983-521306	19830407
	CH 656395	A	19860630	CH 1983-1890	19830407
	DK 8301565	A	19831009	DK 1983-1565	19830408
	DK 160102	B	19910128		
	DK 160102	C	19910610		
	BE 896412	A1	19831010	BE 1983-210515	19830408
	AU 8313250	A1	19831013	AU 1983-13250	19830408
	AU 558317	B2	19870129		
	NL 8301249	A	19831101	NL 1983-1249	19830408
	GB 2120293	A1	19831130	GB 1983-9604	19830408
	GB 2120293	B2	19851211		
	US 4482471	A	19841113	US 1983-554049	19831121
	US 4482630	A	19841113	US 1983-554094	19831121
	US 4482477	A	19841113	US 1983-554095	19831121
	FR 2541301	A1	19840824	FR 1984-2219	19840214
	FR 2541301	B1	19870717		
	SE 8802489	A	19880704	SE 1988-2489	19880704
	SE 501159	C2	19941128		
	SE 8802487	A	19880704	SE 1988-2487	19880704
	SE 503144	C2	19960401		
	SE 8802490	A	19880704	SE 1988-2490	19880704
	SE 466155	B	19920107		
	SE 466155	C	19920514		
	SE 458763	B	19890508	SE 1988-2488	19880704
	SE 458763	C	19890831		
PRAI	US 1982-366712		19820408		
	US 1982-366713		19820408		

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> d 1-5 18 ti

L8 ANSWER 1 OF 5 USPATFULL

TI Method for producing nonionic detergent granules

L8 ANSWER 2 OF 5 USPATFULL

TI Method for producing detergent particles having high bulk  
density

L8 ANSWER 3 OF 5 USPATFULL

TI Method for producing nonionic detergent granules

L8 ANSWER 4 OF 5 USPATFULL

TI Process for producing nonionic detergent granules

L8 ANSWER 5 OF 5 USPATFULL

TI Process for increasing the density of spray dried, phosphate-reduced  
detergents

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> d 1-12 14 ti

L4 ANSWER 1 OF 12 CA COPYRIGHT 2001 ACS

TI Manufacture of granular nonionic laundry detergent compositions having excellent solubility and cleaning power at a high temperature

L4 ANSWER 2 OF 12 CA COPYRIGHT 2001 ACS

TI Coated polymer molding products with improved discoloration of coatings

L4 ANSWER 3 OF 12 CA COPYRIGHT 2001 ACS

TI Deodorizing and antimicrobial coatings and coating process and compositions therefor

L4 ANSWER 4 OF 12 CA COPYRIGHT 2001 ACS

TI Manufacture of compacted, granular sodium silicates for detergents

L4 ANSWER 5 OF 12 CA COPYRIGHT 2001 ACS

TI Adsorption of anionic surfactants on granules for use in detergents

L4 ANSWER 6 OF 12 CA COPYRIGHT 2001 ACS

TI Manufacture of metal-coated inorganic powders

L4 ANSWER 7 OF 12 CA COPYRIGHT 2001 ACS

TI Self-cleaning coatings

L4 ANSWER 8 OF 12 CA COPYRIGHT 2001 ACS

TI Softener-containing granular detergent for textiles

L4 ANSWER 9 OF 12 CA COPYRIGHT 2001 ACS

TI Coating compositions for insulated wires

L4 ANSWER 10 OF 12 CA COPYRIGHT 2001 ACS

TI Pourable washing compositions containing aluminosilicates and nonionics

L4 ANSWER 11 OF 12 CA COPYRIGHT 2001 ACS

TI Dust preventing agent

L4 ANSWER 12 OF 12 CA COPYRIGHT 2001 ACS

TI Adsorption of surface-active compounds and polymers by titanium dioxide modified with inorganic compounds

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